

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

PPLICATION N	Ю.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,356		09/19/2003	Stanley James Cartwright	NLF-0316	8184
27810	7590	07/10/2006		EXAMINER	
EXXON	MOBIL	RESEARCH AND	THEXTON, MATTHEW		
P.O. BOX 1545 RO		FAST		ART UNIT	PAPER NUMBER
		NJ 08801-0900	1714		
				DATE MAILED: 07/10/200	6

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)					
	Office Antique Commence	10/666,356	CARTWRIGHT, S	CARTWRIGHT, STANLEY JAMES				
	Office Action Summary	Examiner	Art Unit					
		Matthew A. Thexton	1714					
Period fo	The MAILING DATE of this communication or Reply	appears on the cover sheet w	vith the correspondence ac	idress				
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR RICHEVER IS LONGER, FROM THE MAILIN nsions of time may be available under the provisions of 37 CF SIX (6) MONTHS from the mailing date of this communication of period for reply is specified above, the maximum statutory per to reply within the set or extended period for reply will, by steeply received by the Office later than three months after the end patent term adjustment. See 37 CFR 1.704(b).	G DATE OF THIS COMMUNI FR 1.136(a). In no event, however, may a n. eriod will apply and will expire SIX (6) MO statute, cause the application to become A	ICATION. reply be timely filed NTHS from the mailing date of this of BANDONED (35 U.S.C. § 133).	,				
Status								
1)	Responsive to communication(s) filed on 2	2006 3/24 & 5/4.						
·		This action is non-final.						
3)	Since this application is in condition for all		tters, prosecution as to the	e merits is				
• —	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Dispositi	on of Claims							
4)🖂	☑ Claim(s) <u>1-10</u> is/are pending in the application.							
•	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)	Claim(s) is/are allowed.							
6)⊠	Claim(s) <u>1-10</u> is/are rejected.							
7)	Claim(s) is/are objected to.							
8)[Claim(s) are subject to restriction a	nd/or election requirement.						
Applicati	on Papers							
9)🖂	The specification is objected to by the Exar	miner.						
10)	The drawing(s) filed on is/are: a)	accepted or b) □ objected to	by the Examiner.					
	Applicant may not request that any objection to	the drawing(s) be held in abeya	nce. See 37 CFR 1.85(a).					
	Replacement drawing sheet(s) including the co	rrection is required if the drawing	g(s) is objected to. See 37 C	FR 1.121(d).				
11)	The oath or declaration is objected to by th	e Examiner. Note the attache	d Office Action or form P	ΓΟ-152.				
Priority ι	ınder 35 U.S.C. § 119							
	Acknowledgment is made of a claim for for ☐ All b) ☐ Some * c) ☐ None of:	eign priority under 35 U.S.C.	§ 119(a)-(d) or (f).					
,-	1. Certified copies of the priority docum	nents have been received.						
	2. Certified copies of the priority docum		Application No					
	3. Copies of the certified copies of the			Stage				
	application from the International Bu	reau (PCT Rule 17.2(a)).						
* S	ee the attached detailed Office action for a	list of the certified copies not	received.					
Attachmen	t(s)							
	e of References Cited (PTO-892)	4) X Interview	Summary (PTO-413)					
	e of Draftsperson's Patent Drawing Review (PTO-948 nation Disclosure Statement(s) (PTO-1449 or PTO/SI	_	s)/Mail Date Informal Patent Application (PT0	O-152)				
	r No(s)/Mail Date	6) Other:		,				

DETAILED ACTION

Text of Title 35 USC not Cited

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

The abstract of the disclosure is objected to because it does not reflect the claimed disclosure. Correction is required. See MPEP § 608.01(b).

Claims Version

The listing of claims submitted in the paper filed 2006 May 4 has been examined.

Claims Analysis

Claim 1 is directed to a lubricating oil mixture comprising:

- (a) a major amount of a base oil of lubricating viscosity;
- (b) a combination of neutral and overbased metallic detergents;
- (c) (c1) about 0.06 to 0.15 vol % a zinc dialkyldithiophosphate and (c2) about 0.1 to 2.0 vol % of a zinc dialkyldithiocarbamate; and
- (d) about 0.5 to about 2.0 vol % an ashless dihydrocarbylthiocarbamoyl antioxidant, OR about 0.5 to about 1.9 vol % phenolic antioxidants, OR about 0.5 to 3.0 vol % of mixtures.

Application/Control Number: 10/666,356

Art Unit: 1714

Dependent claims 2-5 further limit the types of dihydrocarbylthiocarbamoyl, the presence of phosphorus up to 0.008 weight %, the viscosity, the presence of conventional gas engine oil additives. Claims 2 and 7 further limit the type of dihydrocarbylthiocarbamoyl but do not select it from the group recited in (d) (claim 1) or (c) (claim 6).

Independent claim 6 parallels claim 1, and is directed to methods of enhancing the life of a lubricating oil comprising "adding" thereto the additives recited as in claim 1. Claims 7-10 parallel claims 2-5.

Claims 2 and 7 further limit the type of dihydrocarbylthiocarbamoyl but do not select it from the group recited in (d) (claim 1) or (c) (claim 6).

35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim(s) Rejection(s)

Claims 1-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Inoue et al (US 5744430A).

The present claims are broadly discussed hereinabove in the section *Claims***Analysis* which is incorporated by reference.

The reference '430 discloses mixtures comprising lubricating oil plus overbased calcium salicylate plus calcium sulfonate plus ZDTP plus phenol plus zinc dipentyldithiocarbamate (example 8) in proportions that appear to be encompassed by Applicant's claims. Low viscosity oil is employed.

In the event the reference is deemed to be of not within the proportions of Applicant's claims to sustain a conclusion of anticipation, then it is concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed varying amounts as broadly suggested by '430 (column 1, line 60 to column 2, line 20).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham et al. (US 5693598A) in view of Cartwright et al (US 6140282A).

The present claims are broadly discussed hereinabove in the section *Claims***Analysis* which is incorporated by reference.

The reference '598 discloses lubricating mixtures comprising a thiocarbamate plus a dithiophosphates plus phenol plus overbased detergents (example 14) apparently in the proportions encompassed by Applicant's claims. The zinc salt form for the thiocarbamate is suggested (column 6, lines 31-34). '598 does not disclose a combination of neutral and overbased detergents.

Application/Control Number: 10/666,356

Art Unit: 1714

'282 discloses lubricating mixtures employing combination of neutral and overbased detergents. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the detergents of '282 in the mixtures of '598 in order to obtain the benefits ascribed thereto since the references are in the same field of endeavor. It would have been obvious to one of ordinary skill in the art at the time of the invention to have employed varying amounts as broadly suggested by '598 (column 21, lines 31-61, column 24, lines 1-5). Low viscosity oil is suggested (column 3, lines 40-58).

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following were cited in Applicant's description, and are cited to complete the record: US 6191081B1; US 5726133A; US 5569405A.

Response to Amendments and Arguments

Applicant's arguments, see page 3 of response, filed 2006 March 24, with respect to the rejection(s) of claim(s) 1-10 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Inoue et al (US 5744430A) and in view of Abraham et al. (US 5693598A) in view of Cartwright et al (US 6140282A).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Thexton whose telephone number is 571-272-1125. The examiner can normally be reached on Tuesday-Friday, 10:00 to 7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan S. Jagannathan can be reached on 571-272-1119. The fax

Application/Control Number: 10/666,356 Page 7

Art Unit: 1714

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M. S. / hexton

Matthew A. Thexton Primary Examiner Art Unit 1714

matthew.thexton@uspto.gov